Seminar: Modellbasierte Entwicklung in der Fahrzeuginformatik

Presentations

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(mostly based on material by Graham Horton)

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Preparation

• Prepare for a talk!
• Preparation takes time (20x time of actual presentation)
• Do not prepare slides the evening before!
Presenting Scientific Results

- Before writing a paper
  - Present ideas to colleagues for discussion
  - Put your ideas into order
  - Think about visualizations
- After writing a paper
  - Presenting an accepted paper at a workshop or conference
  - Give a rough overview: Problem, Solution, Evaluation
  - Convince audience to read the paper
  - Initiate a discussion (workshop)
- Paper and presentation often do not perfectly align
- (Lecture != Presentation)
Prepare for a very large room
Workshop Room
What makes a successful presentation?

- **Facts**
  - Content
  - Structure
  - Cohesion / line of thoughts
- **Visuals**
  - Design of slides
  - Visualizations
- **Appearance**
  - Body language
  - Language
  - Subjective impression
Goals

• Every presentation has a goal
• Every presentation has several tasks

• Answer these questions first:
  • What is my goal?
  • What is my main point?
  • Why should the audience listen?
  • Why is the topic interesting?
  • Who will benefit from this presentation?
Structure

- **Beginning: Connect to audience**
  - Introduce yourself
  - Motivate your topic (why should they listen?)
  - Executive summary (main points, main results)
  - (Calm down)
- **Middle: Convey information**
  - Facts, Arguments, Results, Discussion
- **End: Take home message**
  - Summarize main points
  - Emphasize consequences
  - Future work
Beginning

• What is the general problem?
• What is the specific problem?
• Why is this problem interesting?
• Which question(s) to answer?
• (State of the art)
• How to proceed and why?
• Goals and tasks?
Middle

- What background knowledge is necessary?
- Which problems need to be solved?
- Which decisions to make?
- Which assumptions/simplifications and why?
- Experiments
- Results
- Interpretation
- Does this answer my hypothesis?
End

• What was the main result?
• How general are these results? (threats to validity)
• What are the consequences?
• What remains open? Which new questions arose? Future work?
• Thank for attention
Typical problems

- Too quick introduction
- Problem remains unclear
- Consequences / results unclear
- Too much “what I did”
- Too little “why did I do this (each step)”
- Too little “what’s the point”
- No connection between thoughts / slides
- Missing cohesion
Technical Hints

- 20 min, about 7 to 15 slides
- Fontsize >= 18, sans-serif fonts (this is 22)
- Name, title and affiliation on every slide
- Slides number on every slide
- At most one topic per slide
- Visualization, colors where necessary
- Avoid overfull slides (> 7 objects or > 36 words)
- Avoid full sentences, instead summarize content using headwords.
Structure slide?

• Only if you have something to say
• Maybe only after motivation slides

Agenda

• Problems and Advantages of Preprocessors
• 4 Improvements
  • Views
  • Visual Representation
  • Disciplined Annotations
  • Product-Line-Aware Type System
• Summary and Perspective
Visualizations

Ein Bild verwirrt mehr als Tausend Worte....oder doch nicht?
Visualizations

- Assists memory
- Assists comprehension
- Emphasizes the content
- More accessible style

- If
  - Meaning is clear
  - Visualized content is correct
  - Text is readable
Different kinds of visualizations

- Diagrams
- Photos
- Clip-arts
- …
- A microprocessor consists of X, Y and Z…
Animation

• Use animation with care

• Use
  • to focus attention (~ laser pointer)
  • to visualize a process / several steps

• Do not use without specific purpose
Animation: Die Todsünde

• Punkt 1   Blah blah blah blah blah blah
  • Punkt 1–1   Blah blah blah blah blah blah
  • Punkt 1–2   Blah blah blah blah blah blah

• Punkt 2   Blah blah blah blah blah blah blah
  • Punkt 2–1   Blah blah blah blah blah blah blah
  • Punkt 2–2   Blah blah blah blah blah blah

• Punkt 3   Blah blah blah blah blah blah blah
Abläufe visualisieren

• Erklärung eines Warteschlangensystems:
Aufmerksamkeit lenken

Bachelor: Anfänger
Bachelor: Fortgeschrittene
Master: Anfänger
Master: Fortgeschrittene

Simulation Project
Simulationsysteme
Produktionsimulation
Umwelt- und Unternehmenssimulation

Introduction to Simulation
Simulation & Animation

Diskrete Simulation
Kontinuierliche Simulation

Advanced Discrete Sim.
Petrinetze
Checklist for visualizations

- Can text be replaced by visualizations?
- Is the meaning clear?
- Are the facts correct?
- All texts and details readable?
- No unnecessary or misleading elements?
- Does it help comprehension?
Communication

- You cannot not communicate

concious level

unconscious level

Information
Body language
Appearance
Personality
Feelings
Where to stand

- Facing the audience
- Not too far away
- Don’t hide the projected image
- Don’t hide behind furniture
Posture

- Upright
- Open
- Relaxed
- Stable
Movement

- Don’t fidget
- Emphasize thoughts with gestures and facial expressions
- Calm, but not fixed
Eyes

- Look at the audience
- Try to look at everybody naturally
- Do not stare at screen/window/corner/floor
Voice / Language

- Slow enough
- Loud enough
- Clear pronunciation
- Enough pauses
- Avoid monotony

- Keep sentences simple
- Don’t read
Timing

- Practice timing
- If faster when nervous plan ahead
- Have a timer during presentation
- Check speed during presentation

- Practice fast and slow version of last 3 slides (maybe have an extra slide you might skip)
Some Last Tips

- Always be prepared
  - Have a PDF version of your slides
  - On at least 2 USB sticks & internet
  - Prepare presentation before the session, usually only one laptop
- Laser pointer hard to see in large rooms -> animations instead
- No dress code in computer science conferences
- Practice timing and phrasing!
Feedback & Grading

• 5 Criteria
  • Motivation an goals clear?
  • Content (structure, cohesion, clarity, conclusion?)
  • Slides (amount, style, visualizations)
  • Presentation & body language
  • Clarity (understandable, slang, missing background inform.)

• Feedback sheet for everybody
Take-away slide

- Prepare for a presentation
- Make goals and motivation crystal clear
- Careful slide layout with visualizations where suitable
- Calm and focused presentation